

REMARKS/ARGUMENTS

Applicant respectfully requests reconsideration of the above-identified application in view of the following remarks and amendments.

Claims 1, 2, 5-7, 10-13, 20, 21, 24-26, and 33-39 remain in this application. Claims 1, 6, 7 and 20 have been amended. All other claims remain unchanged.

Interview Summary

We thank the Examiner and her Supervisor Mark Shibuya for the telephone interview held June 17, 2009. In the summary the Examiner advises that certain claim amendments would be considered for clarity to recite either (1) that the sample is loaded at the side through the indent; (2) narrowing of the channel at the point of contact with the membrane; or (3) including the capillary traps to distinguish the claims from the prior art of record. We disagree with the Examiner with respect to items #2 and #3. The Supervisor had raised these issues during the Interview despite the fact that they were not raised in the previous Office Action to which we were rebutting. We considered it improper for the Examiner and the Supervisor to raise new issues during the Interview. Furthermore, these features are not required for the device to work as claimed. The Interview was scheduled to discuss the Examiner's rejections raised in the Office Action of March 16, 2009. Furthermore, it was apparent that neither the Examiner or the Supervisor had fully considered the last response filed. In particular, both the Examiner and the Supervisor did not comprehend how the claimed device/platform worked despite the fact that we had provided detailed photos and videos via the Applicant's website to clearly demonstrate the claimed device/platform and how it worked and thus clearly distinguishing it from the prior art made of record. Most notably, the photos and video clearly showed that no membrane is present in the platform flow channel, the membrane flow channel is clearly upstream of any membrane and the clarifying claim amendments currently made simply better clarify this.

Solely to further the prosecution of this application, however, claim 1 is amended to recite that the sample is loaded at the side through the indent as was considered acceptable by the Examiner and her Supervisor during the Interview and reiterated in the Interview Summary. The amendment to claim 1 is supported in paragraph [36] of the specification

where it is stated that the sample enters the dry porous carrier at the edges as opposed to the top.

Rejections 35 USC § 103

Claims 1, 2, 5-7, 10, 11, 20, 21, 24, 25, 33, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kang et al. (US 5,559,041) in view of Catt et al. (US 6,451,619) further in view of Yu (US 6,723,500). Claims 1, 2, 5-7, 10, 11, 20, 21, 24, 25, 33, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kang et al. (US 5,559,041) in view of Catt et al. (US 6,451,619) further in view of Segal et al. (US 6,300,141). Claims 12, 13, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kang et al. (US 5,559,041) in view of Catt et al. (US 6,451,619) further in view of Segal et al. (US 6,300,141), as applied to claims 6 and 20, and Freitag et al. (US 6,214,629). Claims 36-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kang et al. (US 5,559,041) in view of Catt et al. (US 6,451,619) further in view of Yu (US 6,723,500), as applied to claims 1, 6, and 20, and Deng (US 6,740,293). The Applicant disagrees with the Examiner.

The presently claimed invention is directed to a platform that has a sample application means and having top and bottom layers with hydrophilic surfaces to enclose and position a membrane(s). Each layer having a top and bottom layer surface formed so that the bottom surface of the top layer and the top surface of the bottom layer may be brought into fixed face to face contact so that the layers enclose and hold the membrane in place and form a platform flow channel upstream of the membrane and including at least one indent in at least one of the hydrophilic surfaces. The formed platform channel is in fluid communication with the membrane to permit the liquid sample to flow in a continuous pathway from the sample application means to the distal end of the membrane. In this claimed arrangement, the sample is provided at one end into the platform flow channel. This is upstream of the membrane. The liquid flows to the membrane and therethrough. The independent claims clearly recite that the sample enters into the platform flow channel and then doesn't contact a membrane until the sample flows through the platform flow channel to an edge of an upstream end of the membranes. This language clearly recites that no membrane is present in the platform flow channel since the sample flows through it and then contacts "a membrane" downstream of it.

In contrast, in all of the cited references, the devices are constructed such that sample is applied directly on a top portion of the membrane and then flows through. This requires a large sample volume that spreads right into one end of the membrane and then flows for a reaction to occur. In the claimed invention, only a small sample is required and is applied laterally and flows laterally through the platform flow channel before it actually reaches the membrane. On page 20 of the description, the distinction between a platform flow channel and a membrane channel is clearly discussed and thus one of skill in the art would understand that the two are structurally different. The Examiner must consider the teachings of the specification as a whole.

None of the cited references or combinations thereof (Kang, Catt, Yu, Segal, Freitag or Deng) teach each and every limitation of the claimed invention nor does any combination of these cited documents suggest to combine individual features to come to the invention presently claimed. Most notably, the combination of cited references still does not provide a structure that is loaded laterally through a platform flow channel in order to provide the correct volume of sample that flows laterally to an upstream edge of a membrane. The platform flow channel serves as a self regulating volume control for the sample. This is evident in the Applicant's submitted materials and the Applicant's website (www.zbx.ca/zapvideo.htm).

None of the cited references alone or in combination provide the claimed recited features and also don't teach the advantages of the presently claimed invention. Therefore, it is respectfully requested that the Examiner's rejections be withdrawn. The Examiner had indicated that the requested amendments would be considered favourably.

Conclusion

The Applicant requests the Examiner reconsider and withdraw all outstanding objections and rejections, enter the amendments, and pass the resulting claims to allowance.

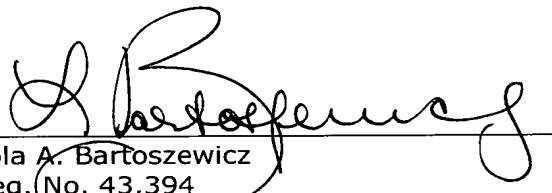
Should the examiner wish to discuss the foregoing amendments to the claims, applicants would appreciate a telephone call to their undersigned representative.

Respectfully submitted,

Sim & McBurney

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Date



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